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PTO/SB/21 (08-03)

Approved for use through 08/30/2003. OMB 0651-0031

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TRANSMITTAL FORM (to be used for all correspondence after initial filing)	Application Number	10/710,439	
	Filing Date	7/12/2004	
	First Named Inventor	HSIN-NUNG LEE	
	Art Unit		
	Examiner Name		
Total Number of Pages in This Submission	3	Attorney Docket Number	SNOP0005USA

ENCLOSURES (Check all that apply)		
<input checked="" type="checkbox"/> Fee Transmittal Form <input type="checkbox"/> Fee Attached <input type="checkbox"/> Amendment/Reply <input type="checkbox"/> After Final <input type="checkbox"/> Affidavits/declaration(s) <input type="checkbox"/> Extension of Time Request <input type="checkbox"/> Express Abandonment Request <input type="checkbox"/> Information Disclosure Statement <input checked="" type="checkbox"/> Certified Copy of Priority Document(s) <input type="checkbox"/> Response to Missing Parts/Incomplete Application <input type="checkbox"/> Response to Missing Parts under 37 CFR 1.52 or 1.53	<input type="checkbox"/> Drawing(s) <input type="checkbox"/> Licensing-related Papers <input type="checkbox"/> Petition <input type="checkbox"/> Petition to Convert to a Provisional Application <input type="checkbox"/> Power of Attorney, Revocation Change of Correspondence Address <input type="checkbox"/> Terminal Disclaimer <input type="checkbox"/> Request for Refund <input type="checkbox"/> CD, Number of CD(s) _____	<input type="checkbox"/> After Allowance communication to Technology Center (TC) <input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences <input type="checkbox"/> Appeal Communication to TC (Appeal Notice, Brief, Reply Brief) <input type="checkbox"/> Proprietary Information <input type="checkbox"/> Status Letter <input type="checkbox"/> Other Enclosure(s) (please identify below):
Remarks		
SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT		
Firm or Individual name	Winston Hsu, Reg. No.: 41,526	
Signature		
Date	8/5/2004	

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PTO/SB/17 (10-03)

Approved for use through 07/31/2006. OMB 0651-0032

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FEE TRANSMITTAL for FY 2004

Effective 10/01/2003. Patent fees are subject to annual revision.

☒ Applicant claims small entity status. See 37 CFR 1.27

TOTAL AMOUNT OF PAYMENT (\$) 0.00

Complete if Known

Application Number	10/710,439
Filing Date	7/12/2004
First Named Inventor	HSIN-NUNG LEE
Examiner Name	
Art Unit	
Attorney Docket No.	SNOP005USA

METHOD OF PAYMENT (check all that apply)☐ Check ☐ Credit card ☐ Money Order ☐ Other ☐ None☒ Deposit Account:Deposit Account Number
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Large Entity Fee Code (\$)	Small Entity Fee Code (\$)	Fee Description	Fee Paid
1001 770	2001 385	Utility filing fee	
1002 340	2002 170	Design filing fee	
1003 530	2003 265	Plant filing fee	
1004 770	2004 385	Reissue filing fee	
1005 160	2005 80	Provisional filing fee	
SUBTOTAL (1)			(\$) 0.00

2. EXTRA CLAIM FEES FOR UTILITY AND REISSUE

Total Claims	Extra Claims	Fee from below	Fee Paid
Independent Claims	-20** =	X	
Multiple Dependent	-3** =	X	

Large Entity Fee Code (\$)	Small Entity Fee Code (\$)	Fee Description
1202 18	2202 9	Claims in excess of 20
1201 86	2201 43	Independent claims in excess of 3
1203 290	2203 145	Multiple dependent claim, if not paid
1204 86	2204 43	** Reissue independent claims over original patent
1205 18	2205 9	** Reissue claims in excess of 20 and over original patent

SUBTOTAL (2) (\$) 0.00

**or number previously paid, if greater; For Reissues, see above

FEE CALCULATION (continued)**3. ADDITIONAL FEES**

Large Entity Fee Code (\$)	Small Entity Fee Code (\$)	Fee Description	Fee Paid
1051 130	2051 65	Surcharge - late filing fee or oath	
1052 50	2052 25	Surcharge - late provisional filing fee or cover sheet	
1053 130	1053 130	Non-English specification	
1812 2,520	1812 2,520	For filing a request for <i>ex parte</i> reexamination	
1804 920*	1804 920*	Requesting publication of SIR prior to Examiner action	
1805 1,840*	1805 1,840*	Requesting publication of SIR after Examiner action	
1251 110	2251 55	Extension for reply within first month	
1252 420	2252 210	Extension for reply within second month	
1253 950	2253 475	Extension for reply within third month	
1254 1,480	2254 740	Extension for reply within fourth month	
1255 2,010	2255 1,005	Extension for reply within fifth month	
1401 330	2401 165	Notice of Appeal	
1402 330	2402 165	Filing a brief in support of an appeal	
1403 290	2403 145	Request for oral hearing	
1451 1,510	1451 1,510	Petition to institute a public use proceeding	
1452 110	2452 55	Petition to revive - unavoidable	
1453 1,330	2453 665	Petition to revive - unintentional	
1501 1,330	2501 665	Utility issue fee (or reissue)	
1502 480	2502 240	Design issue fee	
1503 640	2503 320	Plant issue fee	
1460 130	1460 130	Petitions to the Commissioner	
1807 50	1807 50	Processing fee under 37 CFR 1.17(q)	
1806 180	1806 180	Submission of Information Disclosure Stmt	
8021 40	8021 40	Recording each patent assignment per property (times number of properties)	
1809 770	2809 385	Filing a submission after final rejection (37 CFR 1.129(a))	
1810 770	2810 385	For each additional invention to be examined (37 CFR 1.129(b))	
1801 770	2801 385	Request for Continued Examination (RCE)	
1802 900	1802 900	Request for expedited examination of a design application	

Other fee (specify)

*Reduced by Basic Filing Fee Paid

SUBTOTAL (3) (\$) 0.00**SUBMITTED BY**

(Complete if applicable)

Name (Print/Type)	Winston Hsu	Registration No. (Attorney/Agent)	41,526	Telephone	886289237350
Signature		Date	8/7/2004		

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PTO/SB/02B (08-03)

Approved for use through 08/31/2003. OMB 0651-0032

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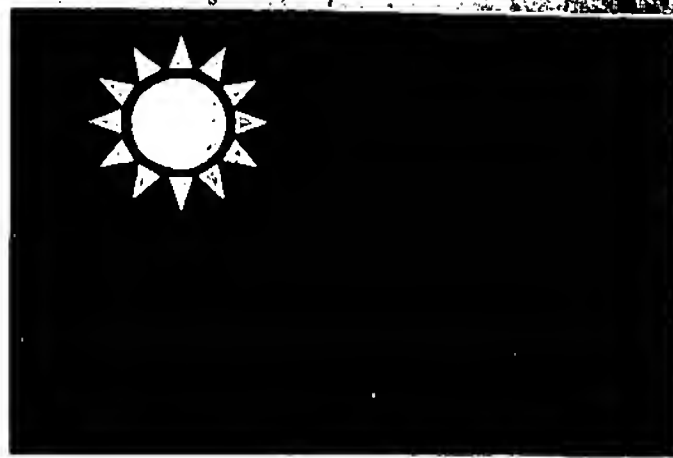
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DECLARATION – Supplemental Priority Data Sheet

[illegible]

This collection of information is required by 35 U.S.C. 115 and 37 CFR 1.63. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 21 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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中華民國經濟部智慧財產局

INTELLECTUAL PROPERTY OFFICE
MINISTRY OF ECONOMIC AFFAIRS
REPUBLIC OF CHINA

茲證明所附文件，係本局存檔中原申請案的副本，正確無訛，
其申請資料如下：

This is to certify that annexed is a true copy from the records of this
office of the application as originally filed which is identified hereunder

申請日：西元 2004 年 02 月 10 日
Application Date

BEST AVAILABLE COPY

申請案號：093201885
Application No.

申請人：鑫濃股份有限公司
Applicant(s)

CERTIFIED COPY OF
PRIORITY DOCUMENT

局長
Director General

蔡練生

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發文日期：西元 2004 年 7 月
Issue Date

發文字號：09320703830
Serial No.

申請日期：	IPC分類
申請案號：	

(以上各欄由本局填註)

新型專利說明書

一、 新型名稱	中 文	超薄型背光模組廣告看板
	英 文	Ultra-thin Backlight Display Panel
二、 創作人 (共1人)	姓 名 (中文)	1. 李鑫濃
	姓 名 (英文)	1. LEE, HSIN-NUNG
	國 籍 (中英文)	1. 中華民國 TW
	住居所 (中 文)	1. 台北市辛亥路四段七十七巷十號十一樓
	住居所 (英 文)	1. 11F, No. 10, Lane 77, Sec. 4, Shin-Hai Rd., Taipei City, Taiwan, R.O.C.
三、 申請人 (共1人)	名稱或 姓 名 (中文)	1. 鑫濃股份有限公司
	名稱或 姓 名 (英文)	1. SINOLOGY ENTERRISE
	國 籍 (中英文)	1. 中華民國 TW
	住居所 (營業所) (中 文)	1. 台北市辛亥路四段七十七巷十號十一樓 (本地址與前向貴局申請者相同)
	住居所 (營業所) (英 文)	1. 11F, No. 10, Lane 77, Sec. 4, Shin-Hai Rd., Taipei City, Taiwan, R.O.C.
	代表人 (中文)	1. 李鑫濃
	代表人 (英文)	1. LEE, HSIN-NUNG

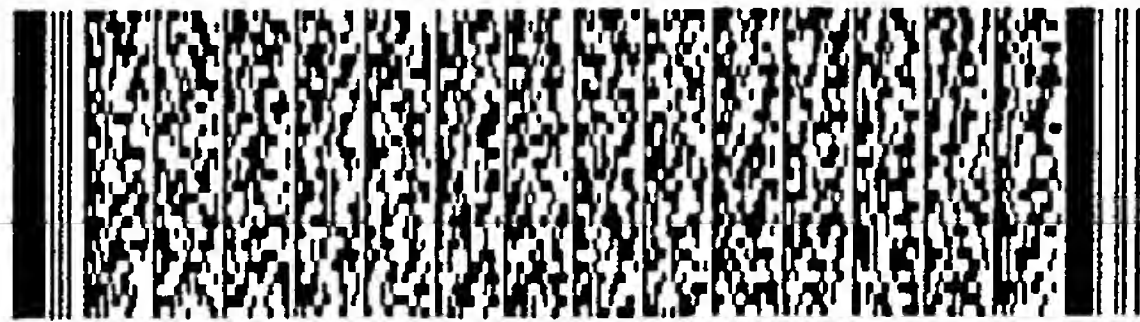


四、中文創作摘要 (創作名稱：超薄型背光模組廣告看板)

一種超薄型背光模組廣告看板包含有上殼體、下殼體以及一背光模組。上殼體、下殼體內分別設有一用來產生光線的冷陰極管。背光模組包含有一導光板、一透光片以及一反射片。導光板具有四個側邊，其中兩側邊係分別與上殼體以及下殼體連結，而其另兩側邊分別被一反光物質所遮蓋。透光片係放置於導光板之第一面，而反射片係放置於導光板之第二面，用來反射來自兩冷陰極管的光線。

五、英文創作摘要 (創作名稱：Ultra-thin Backlight Display Panel)

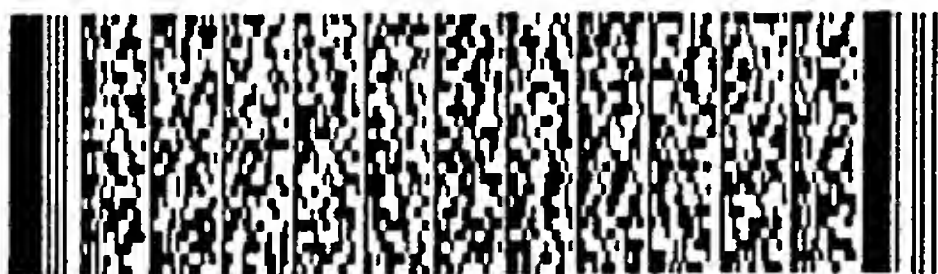
An ultra-thin backlight display panel has an upper housing, a lower housing, and a backlight module. Each of the two housings has a cold cathode fluorescent lamp (CCFL) for generating light. The backlight module has a light guide plate, a transparent film, and a reflection film. The light guide plate has four sides, where two of the four sides are connected with the upper housing and the lower housing, and the other two sides are respectively covered with a reflective material. The transparent film is positioned on a



四、中文創作摘要 (創作名稱：超薄型背光模組廣告看板)

五、英文創作摘要 (創作名稱：Ultra-thin Backlight Display Panel)

first surface of the light guide plate, and the reflection film is positioned on a second surface of the light guide plate to reflect light from the two cold cathode fluorescent lamps.



六、指定代表圖

(一)、本案代表圖為：第____一____圖

(二)、本案代表圖之元件代表符號簡單說明：

10	超薄型背光模組廣告看板		
12	上殼體	14	下殼體
16	背光模組	18	反光物質
20	轉軸	22	固定孔
24	透光片	26	上底座
28	上蓋	30	下底座
32	下蓋		



一、本案已向

國家(地區)申請專利

申請日期

案號

主張專利法第一百零五條準用
第二十四條第一項優先權

無

二、☐主張專利法第一百零五條準用第二十五條之一第一項優先權：

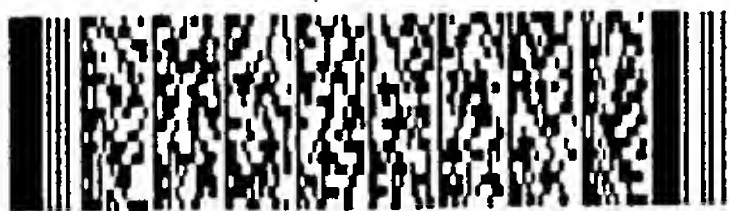
申請案號：

無

日期：

三、主張本案係符合專利法第九十八條第一項☐第一款但書或☐第二款但書規定之期間

日期：



四、創作說明 (3)

體14內皆裝設有一冷陰極管 (Cold Cathode Fluorescent Lamp, CCFL) 38 以及一燈罩40，其中冷陰極管38用來產生光線，而燈罩40則是用來匯集冷陰極管38所產生的光線，以使得大部分冷陰極管38所產生的光線被引導到背光模組16。在本實施例中，冷陰極管38為一高效率冷陰極管，相較於傳統的日光燈管，約可節省百分之八十的電力。另外，冷陰極管38的另一項優點即是有較長的使用壽命，其使用壽命可長達50,000小時 (約六年)。

背光模組16係採用如同液晶顯示器 (Liquid Crystal Display, LCD) 的均光技術，其具有一導光板34、一透光片24以及一反射片36。導光板34具有四個側邊，而其中兩側邊係連接於上殼體12與下殼體14，而其另兩側邊係被一反光物質18所覆蓋。透光片24係放置於導光板34的一面，透光片24可以是一片、一片負片、一片膠片、一片燈片或是一片發光片等，而具透光以及使光線產生擴散之特性。透光片24係可記錄如圖畫、相片或文字等資訊，以提供觀看者用其來顯示特定的訊息。反射片36係設置於導光板34的另一面，用以加強透光片24的透光率，進而使得透光片24的透光率更加明顯。此外，反射片36除了用來反射光線之外，其亦繪製有一均光圖案，以使光線亮度均勻。另外，如圖1所示，背光模組16兩側係採用無邊框的設計，其利用導光板

四、創作說明 (4)

34 兩側邊上的反光物質18之反光特性，來使得上下兩冷陰極管38所投射到導光板34的光線不會經由其左右兩側邊散失掉，如此一來，亦可增加透光片24的表面亮度。

請參考圖三至圖五，其中圖三用來說明圖二超薄型背光模組廣告看板10於換置透光片24時之剖面圖，圖四為圖二上殼體12於換置透光片24時之剖面圖。上殼體12包含有一上蓋28以及一上底座26，上蓋28係以一轉軸20為軸心而可以掀開的方式固定於上底座26；相對地，下殼體14包含有一下蓋32以及一下底座30，下蓋32以另一轉軸20為軸心而可以掀開的方式固定於下底座30。當上蓋28與下蓋32蓋上時，上蓋28與下蓋32即可將透光片24夾置於導光板34的表面上，不使透光片24掉落。上蓋28包含有一第一卡樁44，而上底座26包含有一第二卡樁46，當上蓋28往上底座26蓋合時，第一卡樁44會與第二卡樁46扣合，而使得上蓋28的一側邊48將透光片24夾置在導光板34的表面上。此外，下蓋32的結構與上蓋28相似，亦包含有卡樁的結構，而使得下蓋32可與下底座30扣合在一起。

超薄型背光模組廣告看板10的尺寸可依據使用的需要來作調整，以順應各式看板的客戶需求。另外，因應不同的使用場合，超薄型背光模組廣告看板10的設置方式亦可單面或

四、創作說明 (5)

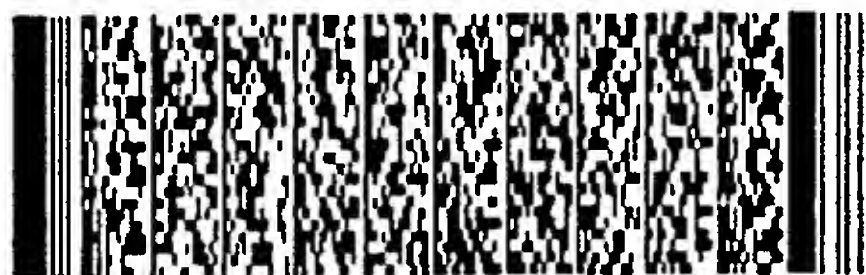
雙面同時使用。請再參考圖一，上殼體的12包含有兩固定孔。22，用來連接一固定器，具看板10。其中，上殼體的12包含有兩固定孔。置超薄型背光模組，如圖六所示，垂直桿52以型背加由者上圖形。至圖九方式，如圖七以及廣告九所寫文字或畫上圖形。使由一壁上；如圖54以廣告九所寫文字或畫上圖形。頂兩垂直背光模組及隨意地塗寫文字或畫上圖形。薄型背上；以圖10隨意地塗寫文字或畫上圖形。告看板10隨意地塗寫文字或畫上圖形。

除此之外，上殼體12以及下殼體14係經過電鍍膜處理，因此具有高雅簡潔的視覺效果。另外，構成超薄型背光的模組質製造，而使其可應用在緊急逃生指示用途上。

相較於習知的廣告看板，本創作之超薄型背光模組方便故的告看板不但在體積採用功率亮度亦較均。告之外，另外低耗電且其表面亮度，且其表面亮度亦較均。

四、創作說明 (6)

以上所述僅為本創作之較佳實施例，凡依本創作申請專利範圍所做之均等變化與修飾，皆應屬本創作專利之涵蓋範圍。



圖式簡單說明

圖式之簡單說明

圖一為本創作超薄型背光模組廣告看板之示意圖。

圖二為圖一超薄型背光模組廣告看板延一虛線2-2之剖面圖。

圖三用來說明圖二超薄型背光模組廣告看板於換置透光片時之剖面圖。

圖四為圖二上殼體於一般使用狀態下時之剖面圖。

圖五為圖二上殼體於換置透光片時之剖面圖。

圖六至圖九係用來說明圖一超薄型背光模組廣告看板的各種使用方式。

圖式之符號說明

10	超薄型背光模組廣告看板		
12	上殼體	14	下殼體
16	背光模組	18	反光物質
20	轉軸	22	固定孔
24	透光片	26	上底座
28	上蓋	30	下底座
32	下蓋	34	導光板
36	反射片	38	冷陰極管
40	燈罩	42	電路板
44	第一卡榫	46	第二卡榫

圖式簡單說明

48 側 邊

52 垂 直 桿

56 橫 桿

50 橫 板

54 纜 繩

58 固 定 器 具



五、申請專利範圍

1. 一種超薄型背光模組廣告看板，其包含有：
一上殼體，其內匯集該第一冷陰極管，以燈罩；
一下殼體，其內匯集該第二冷陰極管，以燈罩；
一背光模組，其包含有一導光板、一透光片以及一反射該反；
其中該光線反射回該面板。
其包含有一導光板、一透光片以及一反射該反；
其中該光線反射回該面板。
2. 如申請專利範圍第1項之超薄型背光模組廣告看板，其中該背光模組的厚度約為一公分。
3. 如申請專利範圍第1項之超薄型背光模組廣告看板，其中該上殼體包含有一上蓋以及一上底座，該上蓋係以可掀及該開下方底座，該下蓋係用夾置該透光片於該導光板的第

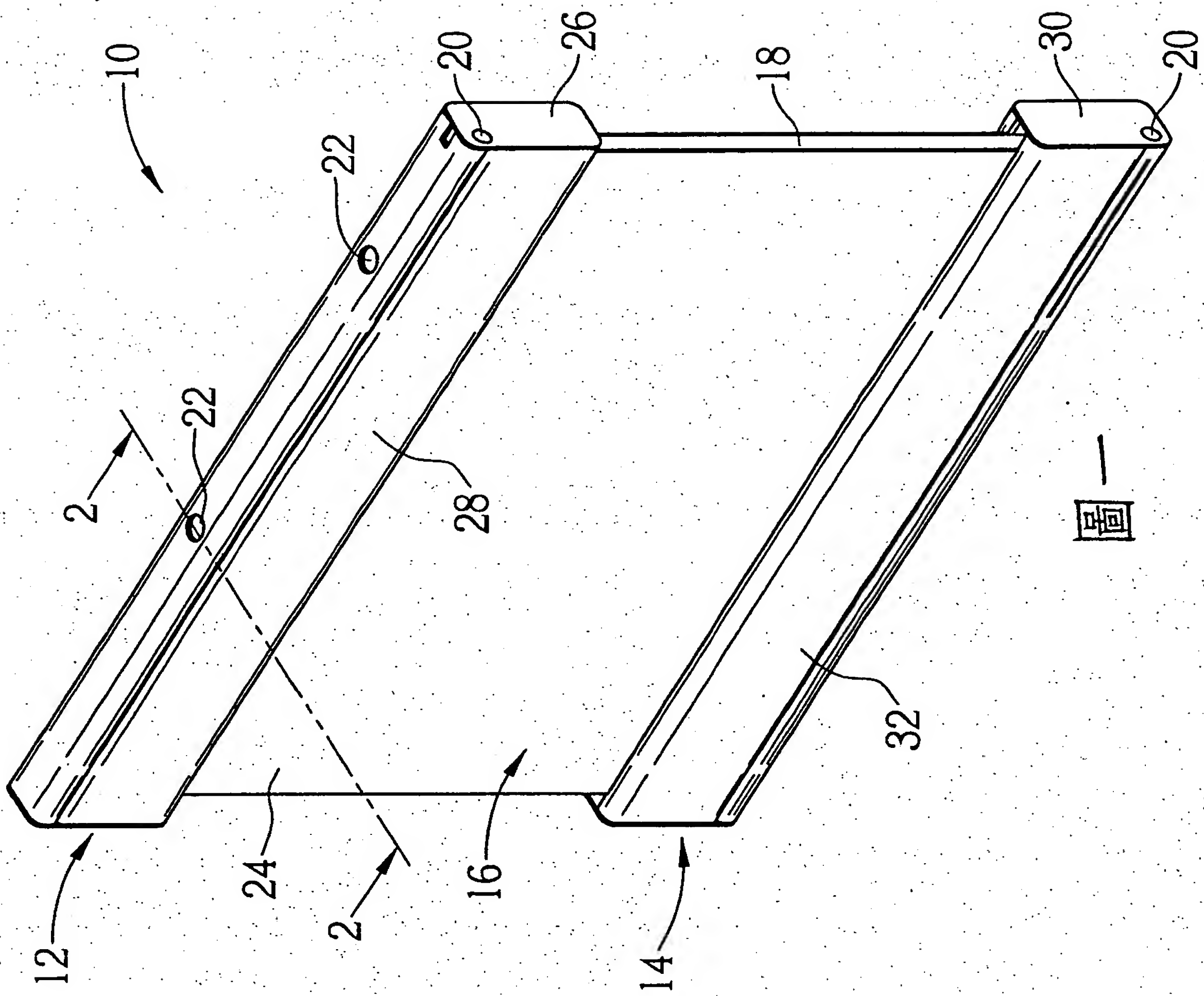
五、申請專利範圍

上。

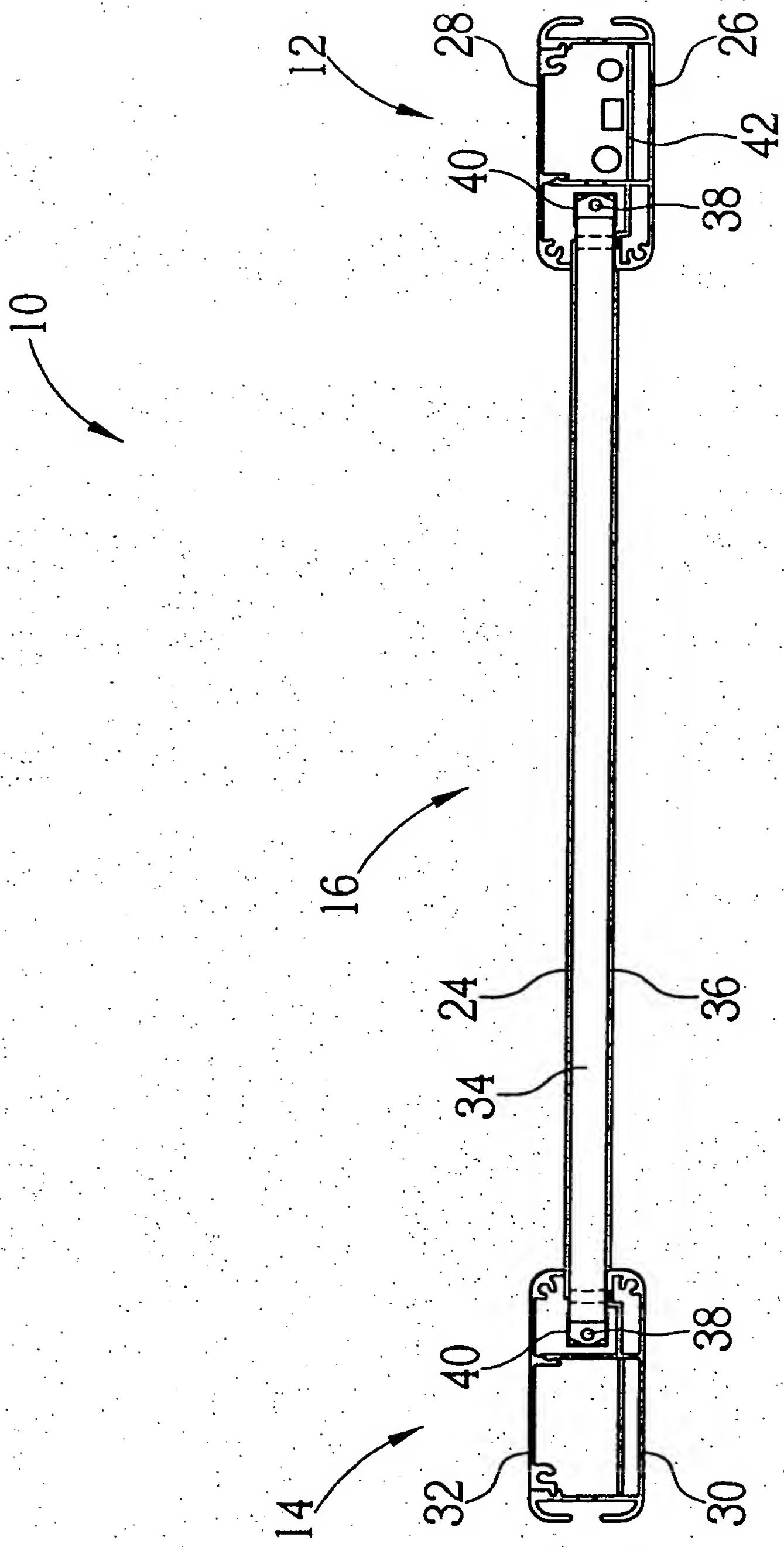
4. 如申請專利範圍第1項之超薄型背光模組廣告看板，其中該透光片具有使光線產生擴散之特性。

5. 如申請專利範圍第1項之超薄型背光模組廣告看板，其中該上殼體包含有至少一固定孔，用來連接一固定器具，其中該固定器具係用來設置該超薄型背光模組廣告看板。



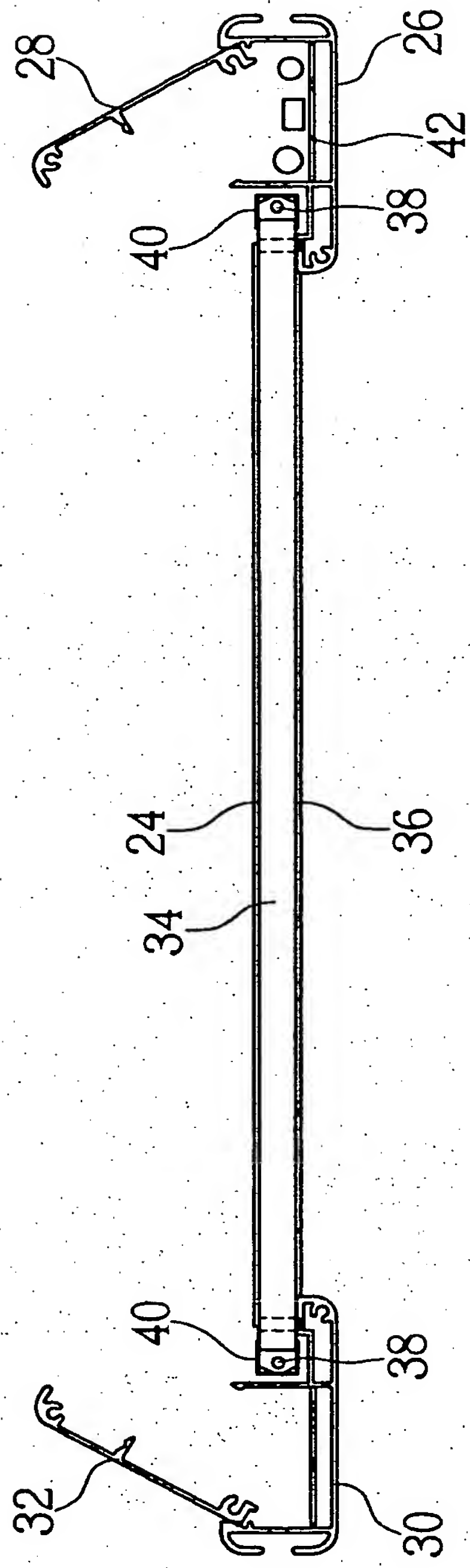


圖一

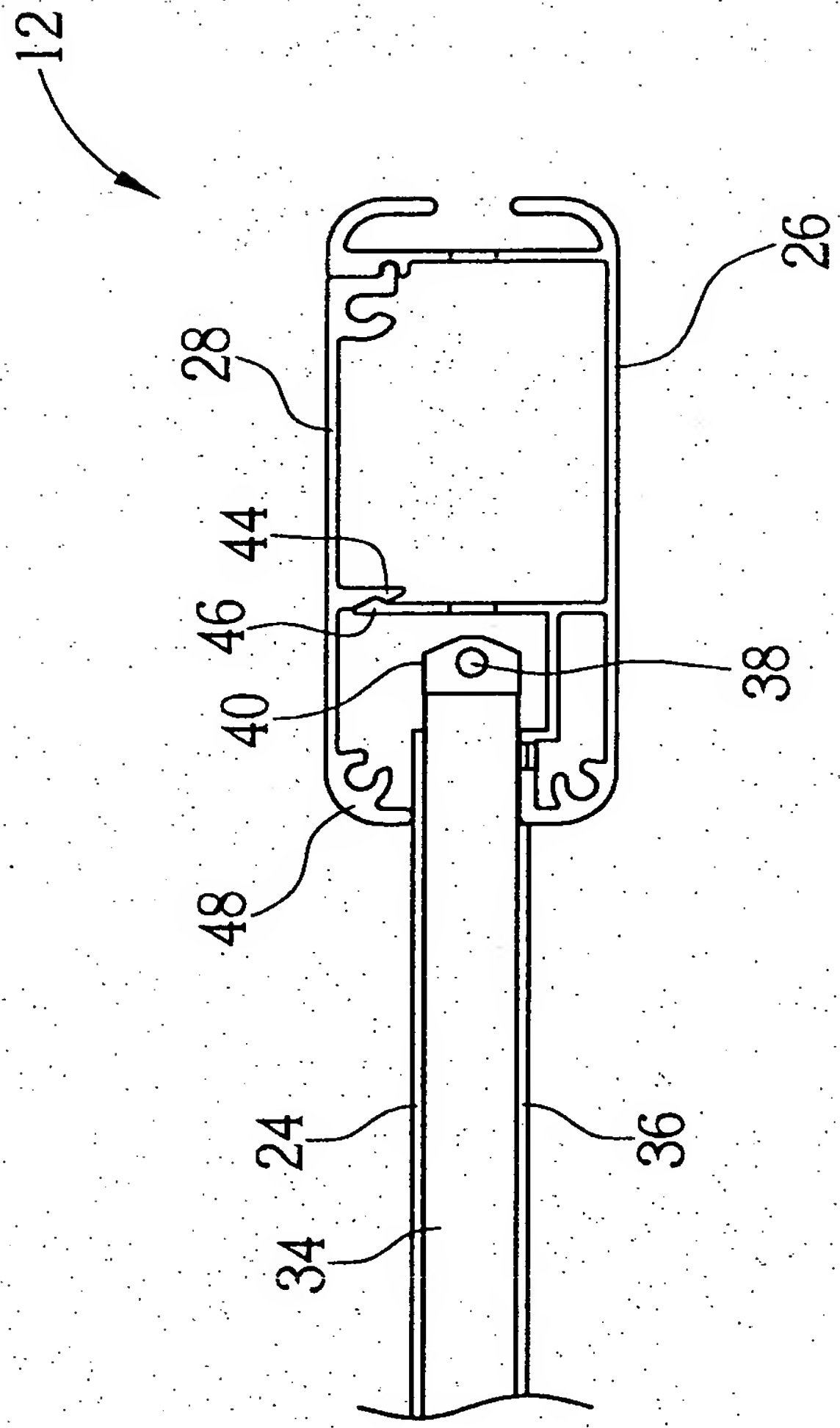


圖二

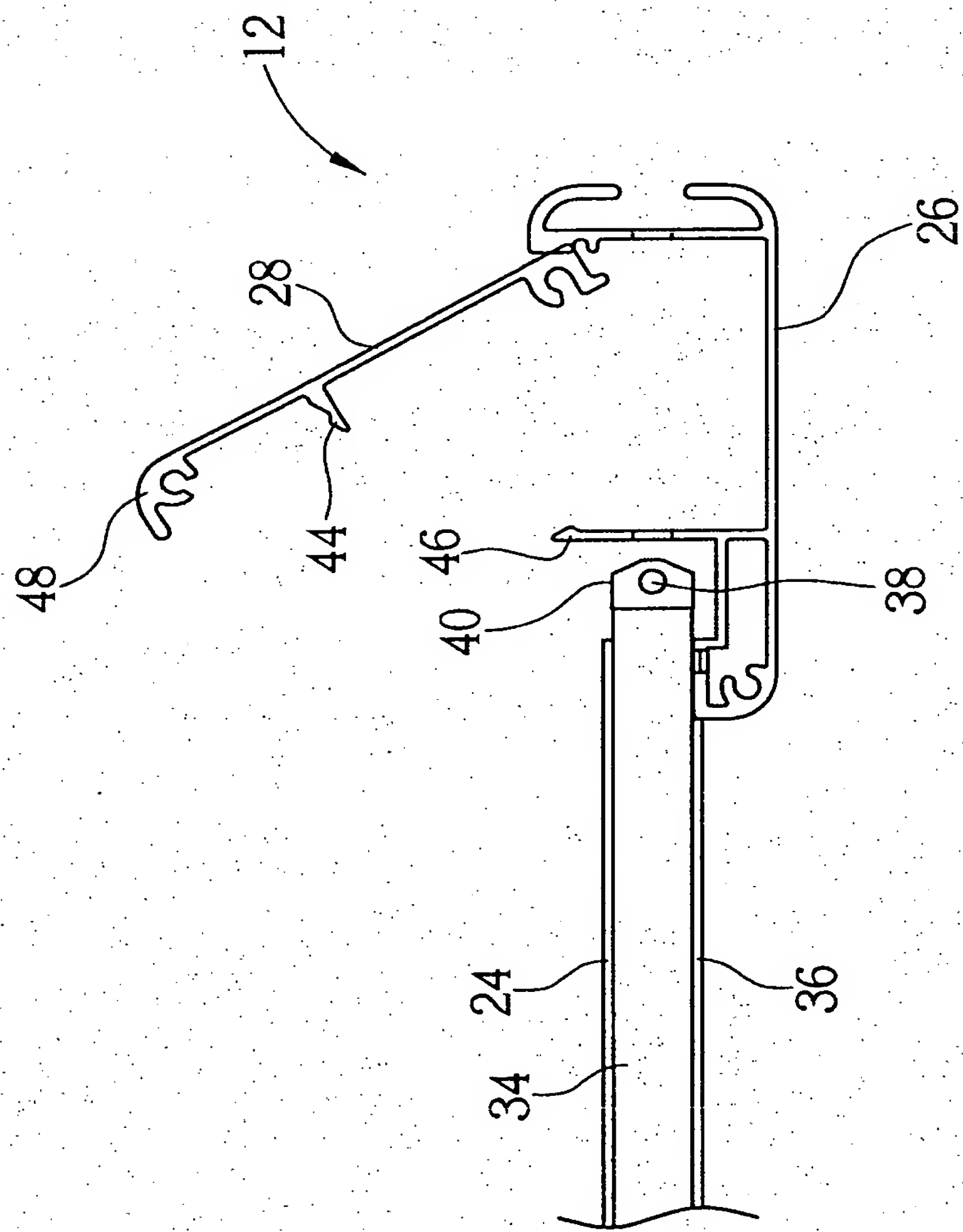
10



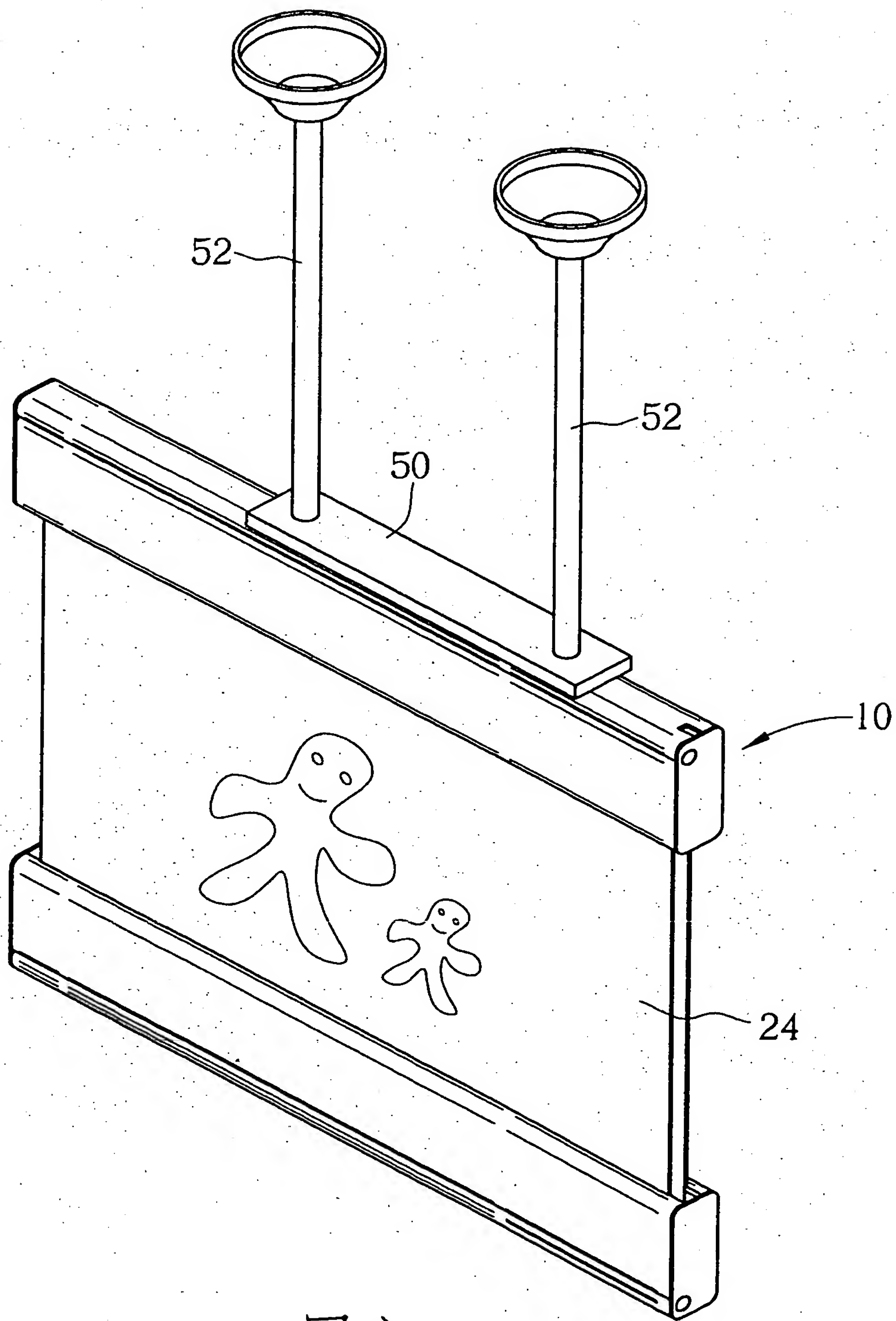
圖三



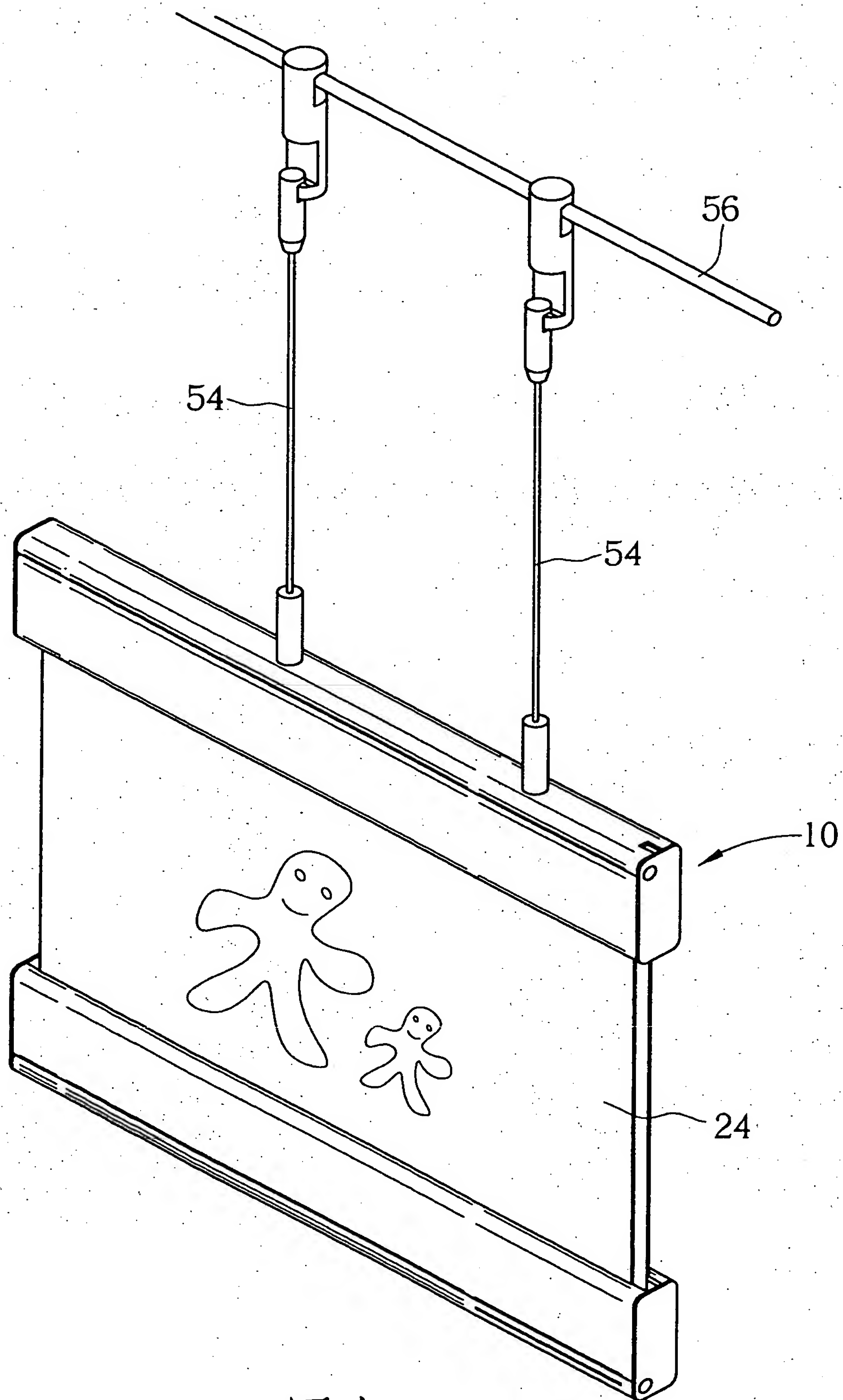
圖四



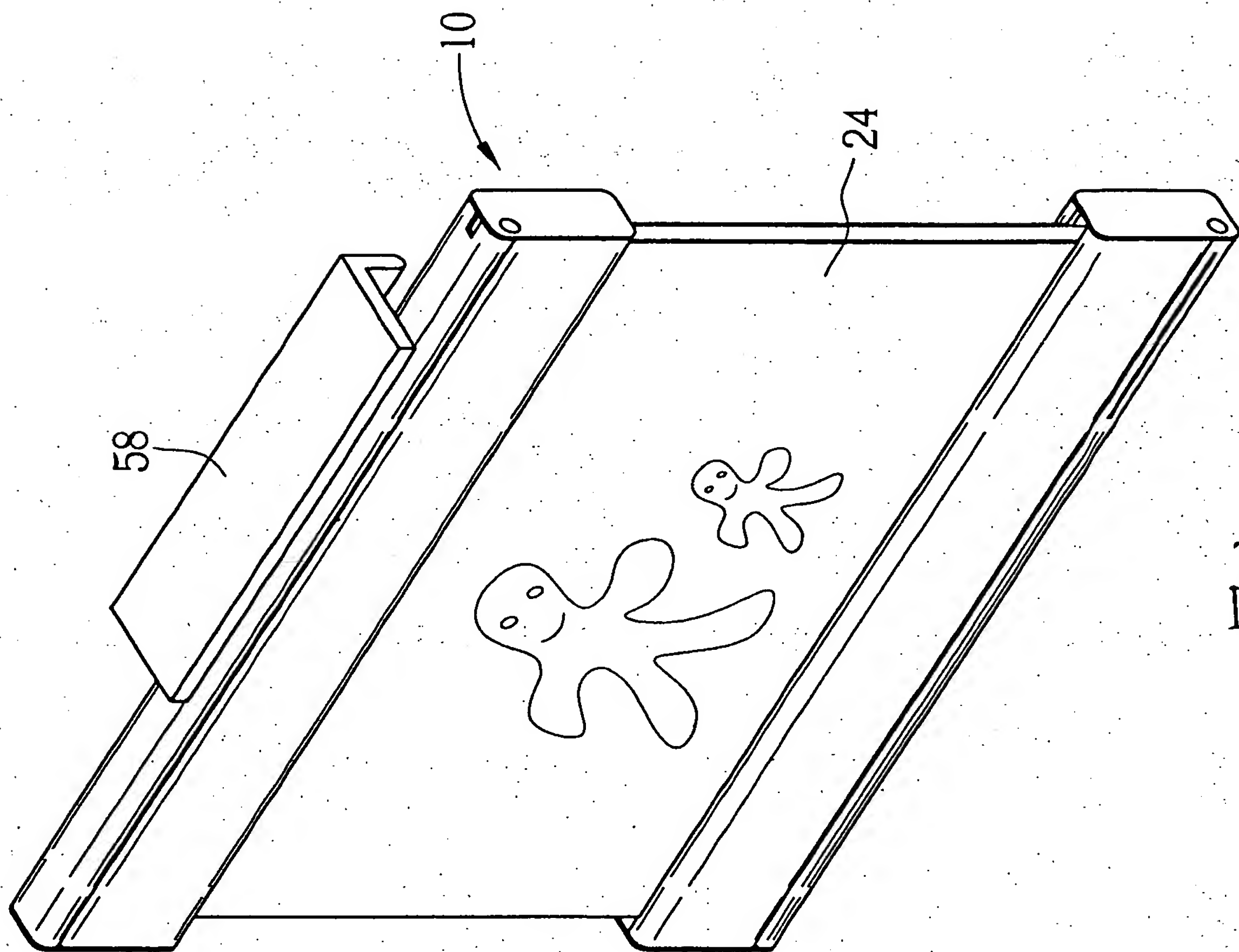
圖五



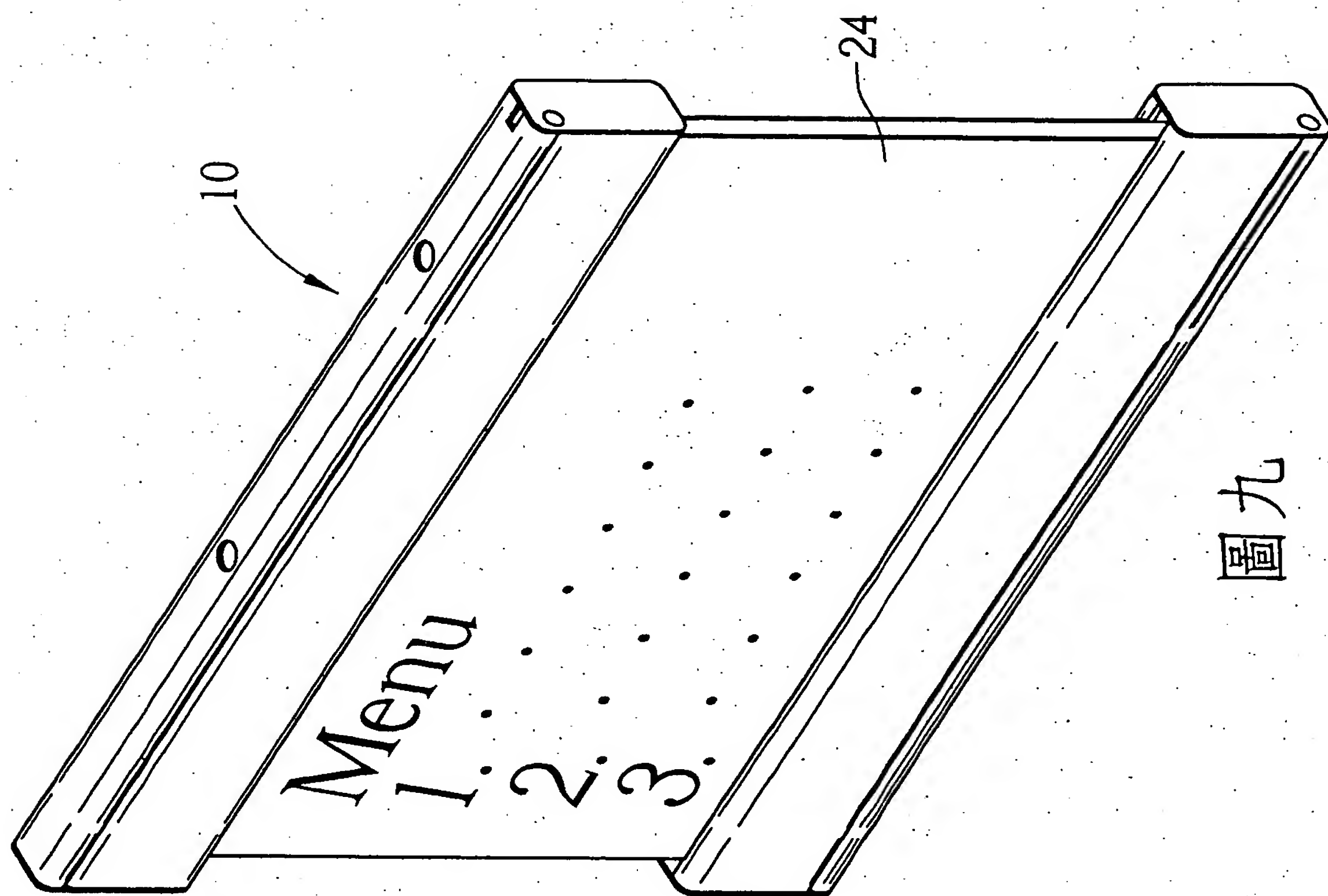
圖六



圖七

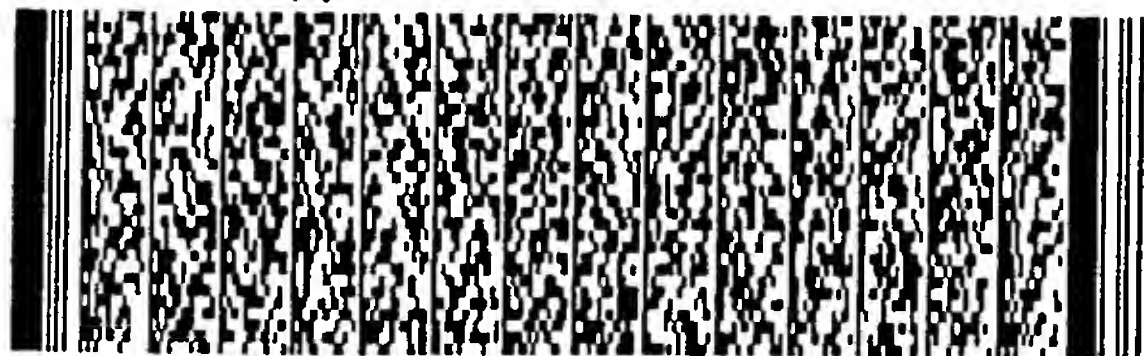


圖八



圖九

第 1/15 頁



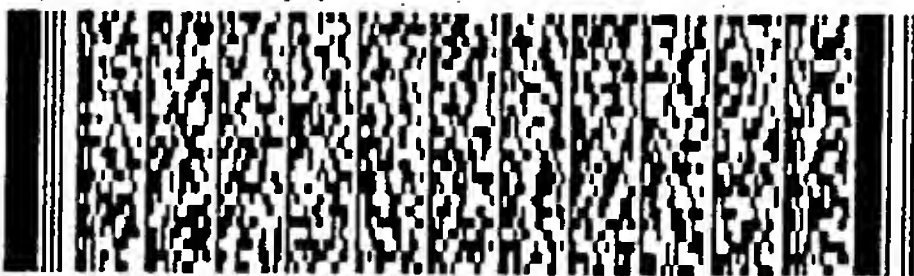
第 2/15 頁



第 2/15 頁



第 3/15 頁



第 4/15 頁



第 5/15 頁



第 6/15 頁



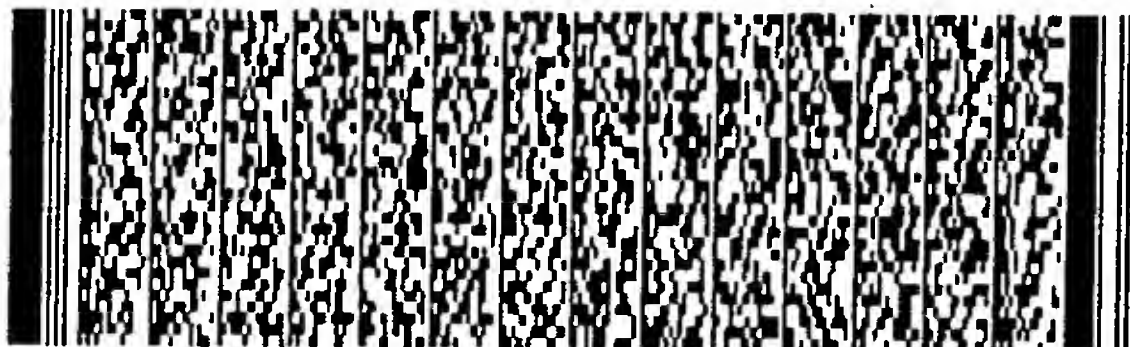
第 6/15 頁



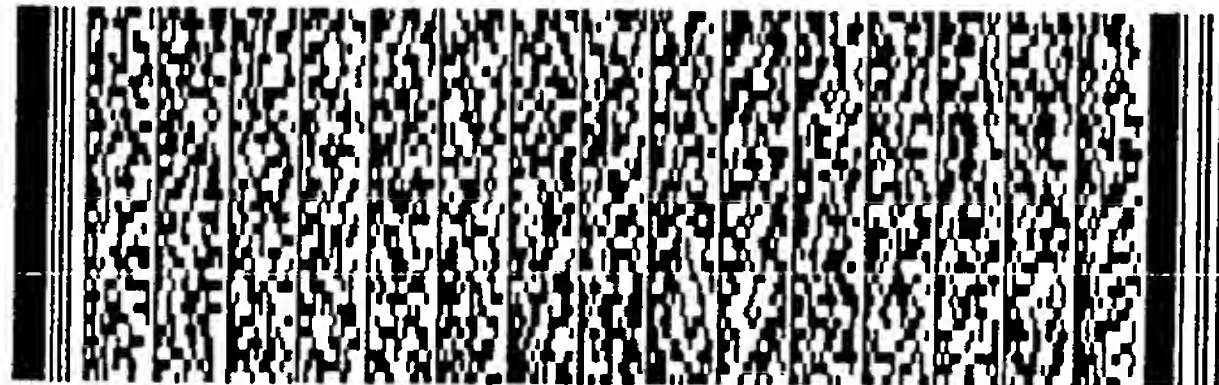
第 7/15 頁



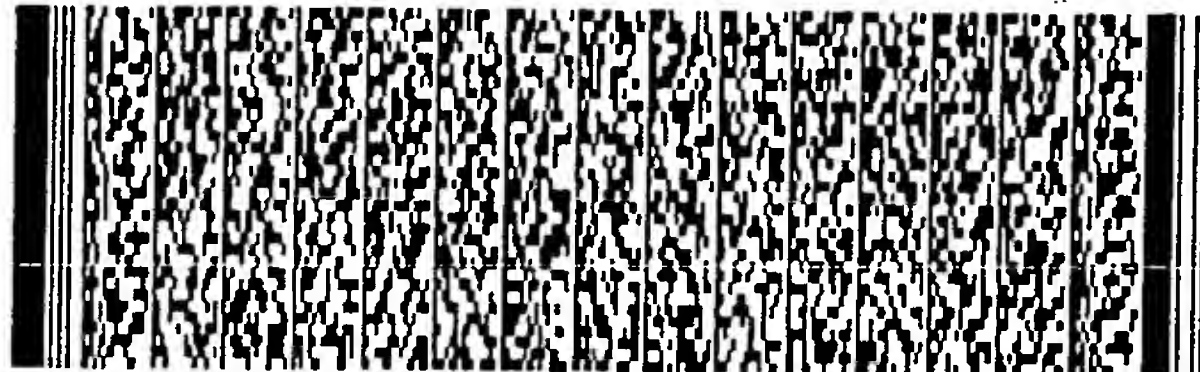
第 7/15 頁



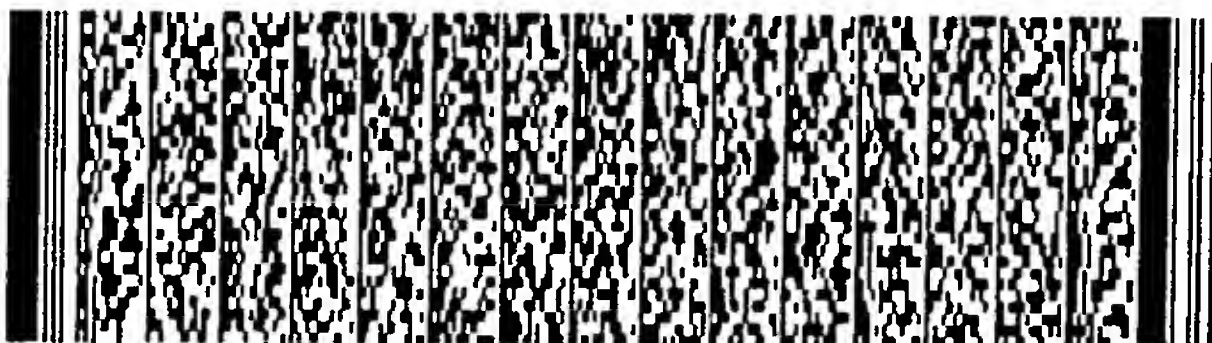
第 8/15 頁



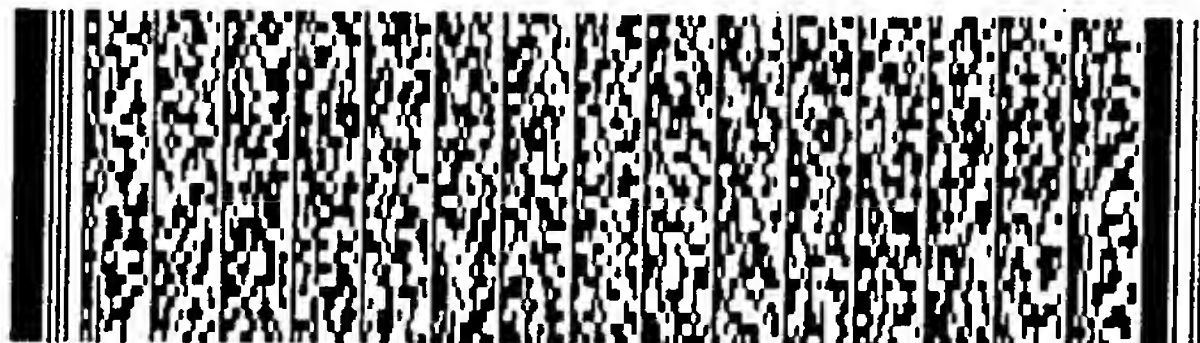
第 8/15 頁



第 9/15 頁



第 9/15 頁



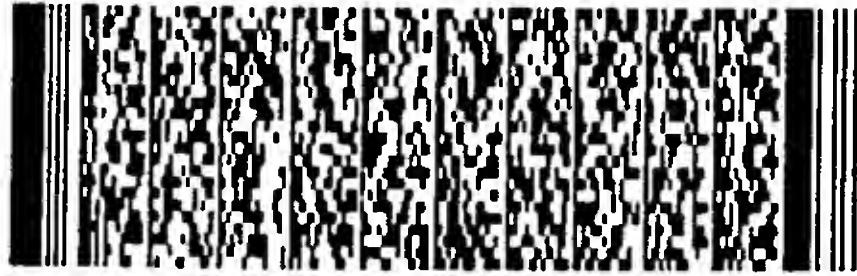
第 10/15 頁



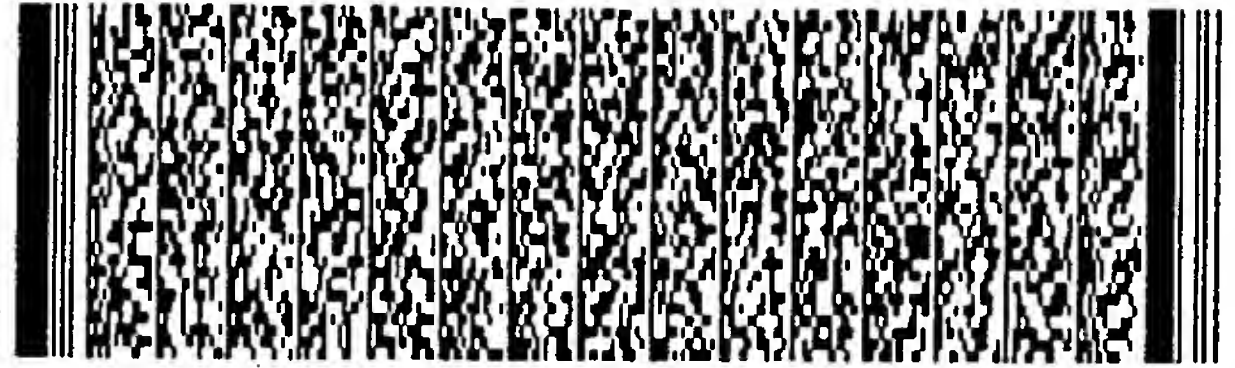
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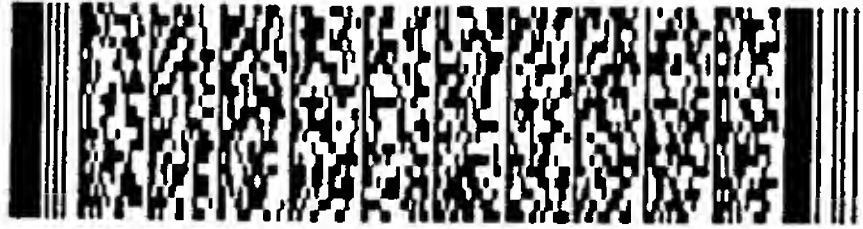
第 11/15 頁



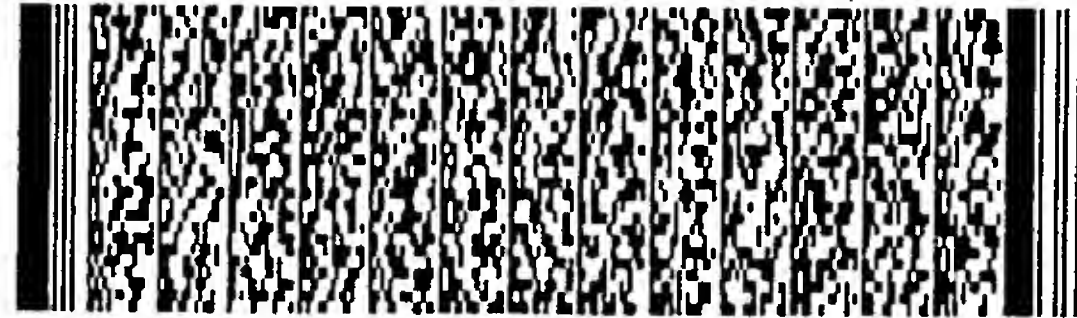
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第 14/15 頁



第 14/15 頁



第 15/15 頁

